REMARKS

Claims 1-24 are currently pending in the application. By this amendment, claims 1 and 13 are amended. Claim 1 is amended to address the Examiner's objection. Claim 13 is amended to depend from claim 6. The above amendments do not add new matter to the application and are fully supported by the specification. Reconsideration of the rejected claims in view of the following remarks is respectfully requested.

Allowed Claims

Applicants appreciate the indication that claims 7, 8, 11 and 12 contain allowable subject matter. Applicants also appreciate the indication that claims 15-18 and 20-22 are allowed. However, Applicants submit that all of the claims are in condition for allowance for the following reasons.

Objection to Claim

Claim 1 was objected to based on a formality. Claim 1 is amended to address this formality. The amendment to claim 1 is not a narrowing amendment.

35 U.S.C. §102 Rejection

Claims 6, 13 and 19 were rejected under 35 U.S.C. §102(b) for being anticipated by U. S. Patent No. 6,283,304 to Gottlieb et al. This rejection is respectfully traversed.

To reject a claim under 35 U.S.C. §102(b), a single reference must show each and every feature of the claimed invention. The Examiner is of the opinion that the features of dependent claim 6 are shown in Gottlieb et al. Applicants do not agree with the Examiner for the following reasons.

As a brief overview, the present invention is directed to a system and method of filling a plurality of containers for reducing a required amount of such containers in a system. In a non-limiting exemplary illustration, the system and method ensures that the containers are uniformly filled and that all containers used in the system are utilized to their maximum capacity. Placement of product within containers may be accomplished by determining threshold values associated with, for example, the

container and amount of drop points required for the product. The invention may be used to reduce the total number of containers required in the system by, for illustration, averaging the product throughout all of the containers or forcing additional product into a previous container or containers. The variables used by the system and method of the invention may include, for example, the maximum and minimum number of pieces and fill load of the containers. If the system and method determines that the threshold has been exceeded, the product can be substantially evenly distributed for all of the containers within a particular drop point by averaging the product over the entire drop point for the container fill. If the system and method determines that the threshold is not exceeded, then the system and method may "force" the additional product into a previous container in order to reduce the number of containers needed for the particular drop point.

Claims 6 and 13

Claim 6 recites, in pertinent part,

> ....
> determining a best estimate of a number of containers needed if a level of fill varies between a maximum and minimum fill value of the at least one container; and
> determining a best estimate of a number of containers needed if the number of product varies for the drop point.

These features are not taught by Gottlieb.

Referring to the flow of FIG. 2 in Gottlieb, the fill amount of the containers is determined solely for the purpose of providing an indication to empty the bin (when it is deemed full), or to divert the product to another bin. There is no disclosure, whatsoever, that the Gottlieb method determines any estimate of the number of bins needed if a fill level varies (i) between a maximum and minimum fill value of the bin or (ii) for a particular drop point. In fact, it would appear that Gottlieb does not even contemplate whether a fill of product will vary between a maximum and minimum fill value for particular bin. Gottlieb also makes no mention of making estimates if the

product varies for a drop point. Instead, Gottlieb appears to only be concerned with determining a maximum fill value.

More specifically, in Gottlieb, a mailpiece is fed into the sorting apparatus and measured by thickness sensors and fed to a particular bin. The measurement is saved in a queue or stack memory device which stores measurements of mailpieces for the particular bin in which the mailpiece was delivered. A query is made as to whether the bin in which the mailpiece was delivered is almost full. If the bin is almost full, a sensor indicates to the operator that the bin should be emptied. If the bin is not emptied, the thicknesses of all of the mailpieces which are to be delivered to a particular bin, but not delivered, are added to the bin almost full value to obtain a calculated thickness. Next, a query is made as to whether the calculated thickness equals a bin-full thickness to determine if the bin is full. If the bin is not full, then feeding and measuring, storing thickness and calculating bin-full thicknesses continue. If the bin is full, a query is made as to whether alternate bins are available for use in conjunction with the mail delivery designation of the full bin. If alternate bins are available, the mailpiece(s) for the full bin is routed and delivered to the alternate bin.

As thus should be understood, though, there simply is no disclosure, whatsoever, that the Gottlieb method determines a best estimate of number of bins needed, much less, based on if a level of fill varies between a maximum and minimum value. Additionally, Gottlieb does not teach determining a best estimate of a number of bins needed if the number of product varies for the drop point. In fact, there is absolutely no disclosure in Gottlieb of making any estimate of the number of bins needed during a particular sorting run. Instead, Gottlieb is concerned with a fill level of a particular bin, and if the bin is full, emptying the bin or directing the mail to an alternate bin. This certainly is not the same as making estimates, based on some variables, as to how many bins may be needed.

Claim 13 is dependent on claim 6 and, as such, includes all of the features of claim 6. For this reason, claim 13 also contains allowable subject matter.

Claim 19

Claim 19 depends from claim 14. Claim 14 contains allowable subject matter and, as such, claim 19 also contains allowable subject matter. For example, claim 14 recites, in part

> ... calculating a best estimate of containers needed if a level of fill varies between a maximum fill value and a minimum fill value and a number of product varies;
>
> calculating an expected number of the containers needed for a drop point based on the calculated best estimate;
>
> determining a number of product required per container for the drop point based on the number of product and the expected number of containers for the drop point ...

As discussed above, Gottlieb does not disclose calculating a best estimate of bins needed if the level of fill varies between a maximum and minimum fill value and the number of product varies. Instead, in Gottlieb, the fill amount of the bins is determined solely for the purpose of providing an indication to empty a bin, or to divert the product to another bin if the bin. There is no disclosure, whatsoever, that the Gottlieb method determines any estimate of the number of bins needed, for whatever purpose. Also, as discussed above, Gottlieb does not even contemplate whether product will vary between a maximum and minimum fill value for particular bin. Instead, Gottlieb appears to only be concerned with determining a maximum fill value so that the bin can be emptied by an operator or the product can be diverted to another bin.

Accordingly, Applicants respectfully request that the rejection over claims 6, 13 and 19 be withdrawn.

Other Matters

Applicants submit that the features of claim 1 are distinguishable over the Gottlieb reference and, as such, claim 1 and its dependent claims (which were withdrawn) should be rejoined. Also, as noted above, independent claim 14 contains allowable

subject matter and all of its dependencies should be rejoined.

By way of example with reference to claim 1, Applicants submit that claim 1 recites, in part,

> assigning variables associated with at least one container and a number of drop points;
> determining at least one threshold value based on the variables; and
> distributing the product to the at least one container for each drop point based on the determined at least one threshold value.

However, Gottlieb does not show assigning variables associated with at least one container and a number of drop points. If there is to be any interpretation, Gottlieb, shows variables associated with product, itself, i.e., thickness measurements of the product. Also, as is discussed above, these thickness measurements are used to determine the fill capacity of the bins. Thus, although the size of the bin should be known, this does not suggest or teach that the Gottlieb method assigns any variables to the bin. Also, Gottlieb does not teach assigning a variable to a drop point. In Gottlieb, the products are assigned to a drop point such that they can be diverted to such drop point. This is not, however, suggestive, of assigning a variable to the drop point.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant submits that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicant hereby makes a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 19-0089.

Respectfully submitted,

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